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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,394	09/16/2003	Yuichi Akiyama	1344.1125	2179

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EXAMINER
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ART UNIT	PAPER NUMBER
2613	

MAIL DATE	DELIVERY MODE
10/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Advisory Action ***Before the Filing of an Appeal Brief***	10/662,394	AKIYAMA ET AL.
	Examiner	Art Unit	
	Wai Lun Leung	2613	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>26 September 2007</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ They raise the issue of new matter (see NOTE below);

   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

      NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: <u>1-15</u>.

   Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:

_____.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.

13. ☒ Other: <u>See Continuation Sheet.</u>

Continuation of 13. Other: Applicant argues that "Morkel does not teach or suggest determining the SNR based on the DOP. In Morkel, the Q penalty (increase of the BER) is determined in relation to the PMD. The Q-penalty is different from the SNR." Examiner respectfully disagree, as it is common engineering knowledge that the Q penalty can be directly derived from the SNR, and the SNR can be directly derived from the Q penalty using common and well known mathematical formulas (as evident from formulas 3, 4, and 5 from Andrew Lord "Power budgeting for long-haul optical amplified system", 28.1.94).

Applicant quoted Morkel "The experimental Q-penalties are in good agreement with the characteristic predicted using equs. 1 and 2, evaluated for a nominal optical SNR (=V1/2Vase) of 10 in a 1nm bandwidth, within the limits of experimental error. The characteristic is relatively insensitive to the optical SNR chosen" as evident that "Q-penalty is different from the SNR". Applicant might have mis-interpreted Morkel's teaching. Morkel's statement "The characteristic is relatively insensitive to the optical SNR chosen" merely means that the formulas 1 and 2 are still accurate regardless of the chosen value of the optical SNR. Although the optical SNR and the Q-value are different, they are mathematically related by laws of physics; if it is obvious to calculate the Q value, it would also have been obvious to calculate the otpical SNR.

Furthermore, Morkel uses the measured values V1 and Vase to calculate the optical SNR, as pointed out by the applicant. Such measured values are also used to calculate the Q value as suggested by Morkel's formula 1. Since it had been proven obvious to calculate the Q value based on an analysis of PMD, which is based on a measured value of the degree of polarization obtained in said degree of polarization measuring section as stated in the last office action, and it is a common and well known engineering knowledge that the Q value can be derived from the SNR, and the SNR can be derived from the Q value, it would have been obvious to a person of ordinary skill in the art to calculate optical SNR that determines an optical signal to noise ratio of said optical signal based on an analysis of PMD, which is based on a measured value of the degree of polarization obtained in said degree of polarization measuring section.

Andrew Lord, "Power budgeting for long-haul optical amplified systems" 28.1.94, The Institution of Electrical Engineers, is cited herein to illustrate a common and well known mathematical formula that explains a law of physics to support arguments to a same ground of rejection as stated in the Final Rection mailed 6/26/2007. No new grounds of rejection is used.

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